

CONDUCTED BY THE
INTERNATIONAL CITY MANAGERS' ASSOCIATION

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CITY EMPLOYEE SAFETY PROGRAMS

Is there need for organized effort to protect the city employee from on-the-job accidents? How can a safety program be organized to effectively reduce job-connected accidents? What activities constitute a good program?

Everyone is for safety and against accidents. Yet indications are that only a handful of cities and counties is actively and conscientiously conducting programs to insure safe working conditions and emphasize safe working practices for their employees. Less than 100 out of a total of 3,048 cities over 5,000 population, for example, belong to the National Safety Council.

Evidently many city officials believe that there isn't any problem or feel that an organized effort would not reduce the number of job-connected accidents. The word accident is defined by the dictionary as an "unforeseen event." An accident prevention program takes the opposite view: *Accidents don't just happen. They are in the main caused by human elements, subject to human control and solution.* This report stresses that accidents are not acts of fate. It shows the need for an organized effort to prevent job injury, and how cities can develop a successful program.

Why a Safety Program?

Number of Accidents. Nationally accidents rank fourth as a cause of death: some 91,000 in 1959 of which 13,800 happened on the job. Total job-connected injuries approximated 1,950 million in 1960. It is not known how many of the job-connected injuries occurred in city employment. The National Safety Council does attempt to develop statistics on an industrial basis, but the returns from cities are few. Based on returns from less than 30 cities which emphasize safety, municipal employment showed an injury frequency rate per million man-hours worked of 16.17 (*Accident Facts*, 1960, p. 37). Individual cities reported frequency rates directly to MIS as high as 43.6.

Cost of Accidents. The cost of all accidents from all sources was at least \$13 billion in 1959. The cost of accidents, both vehicular and other, is direct and indirect. Direct costs include such items as workmen's compensation insurance premiums, vehicle liability insurance premiums, and medical payments to the injured. Indirect costs, which research shows to be four times direct costs, include such items as supervising time lost, lost time by fellow workers, loss of efficiency due to crew breakup, and disruption to production by damage or lay-up to valuable machinery, tools, and equipment. Thus even a single accident can be costly to the city. In 1956-1957, Sacramento County, California, had workmen's compensation losses of \$50,337, and Glendale, California, had direct losses of \$41,653 in 1953.

Safety Programs Work. No one would object to a program that relieved human suffering and at the same time saved dollars for the city. What figures that are available indicate that many cities and counties are in need of safety programs. City Manager C. E. Perkins, Glendale, California, stated in an address to the California Governor's 1961 Industrial Safety Conference:

We all would do everything in our power to prevent an unnecessary death or injury, and every government agency worth its salt today is doing its utmost to give the taxpayers the greatest possible return on every tax dollar spent. . . . Most government agencies are today engaged in an effort to eliminate unnecessary costs and get the last penny's worth of service out of every dollar. We install labor-saving devices, and modern machinery that multiplies work output. We step up training programs . . . and we search for every possible way of reducing

costs. . . . In spite of this . . . many governmental agencies are overlooking one of their major potential savings when they fail to initiate an active and well-organized safety program.

This statement is based on the experience of Glendale from 1953 to 1960. The success of Glendale's program is shown in Figure 1. The safety program reduced the number of injuries per employee by 50 per cent. Actual dollar savings were higher than is apparent in Figure 1 because dollar amounts were not adjusted to reflect the 25 per cent increase in salaries and medical costs that took place.

Other cities also have had excellent results. In 1951, Richmond, Virginia, reduced the frequency of accidents by 50 per cent among refuse collection and street cleaning employees by an organized safety program. Iowa City, Iowa, began a safety program resulting in a greatly improved workmen's compensation experience rating. From 1950 to 1957 the city had a debit rating. In fact the experience loss ratio (premium payments to claims paid) was 123.2 for the years 1953-54-55. The latest three-year ratio, 1958-59-60 was 31.8. Royal Oak, Michigan, reports that its safety program has resulted in an approximate 20 per cent reduction in both vehicular and personal injuries. Oak Park, Michigan, reduced motor vehicle accident losses from \$4,323 (period of April to December, 1959) to \$1,020 (period of December, 1959, to December, 1960). Wichita, Kansas, began a formalized program in 1961. The estimated accident frequency rate per million man-hours worked from 1956 to 1960 averaged about 37.0. For the first quarter of 1961 the rate was 23.17.

Organization

There is general agreement among cities with safety programs as to the type of organization necessary to implement a successful program. First-line supervisors must take responsibility for emphasizing safe working practices, and employees have an obligation to follow safe working practices. Unless management is safety conscious, however, neither of these conditions will exist. To promote safety, cities rely on central coordination and direction and at the same time provide for maximum departmental and employee responsibility and participation. This is accomplished through safety officers and committees.

COMPARISON OF 1960 WITH 1953*

Item	1953	1960	Per Cent Decrease	Per Cent Increase
No. of employees	1,096	1,278		16
No. of employees who have received safety indoctrination	0	1,438		
No. of injuries	326	195	40	
No. of injuries per employee30	.15	50	
No. of days lost	2,260	1,096	52	
No. of days lost per employee	2.06	.86	58	
No. of days lost per million man-hours worked . . .	1,025	293	71	
No. of disabling injuries per million man-hours worked	41.75	20.34	51	
Direct cost of injuries	\$41,653	\$38,338	8	
Direct cost of injuries per employee	\$ 38	\$ 30	21	

*Last full calendar year without safety program.

Figure 1 — Results of Safety Program, Glendale, California

Safety Officer. To provide assistance and impetus to safety programs some cities establish the position of safety officer. Frequently the function is performed by a technician in the personnel department or an administrative assistant to the city manager. The function may be assigned to one individual full time or be part of one or more technician's duties. In a few cities a full-time safety director reports directly to the city manager or the mayor.

Cincinnati and Wichita assign the coordinating function to the personnel department. Cincinnati has two personnel technicians engaged in safety work. Excluding workmen's compensation work (claims processing) the total time spent on safety is about 20 hours a week; including claims processing about 40 hours a week. Wichita assigns the administration, coordination, and record keeping to the personnel and safety officer, and safety training to the classification and training officer. Both of these employees are responsible to the personnel director. Glendale, California, employs a full-time director of safety. He reports directly to the city manager as a staff aid.

The safety officer's job is twofold. He must be a catalyst and serve as a focal point of the safety program. As a catalyst he must find ways to keep interest high. As the focal point the safety officer coordinates related aspects of the program and maintains information as to the success of the program. The duties of the safety officer are clearly defined in a memorandum explaining Corpus Christi's accident control program:

1. Constantly review the safety program as to its effectiveness and make recommendations for improvement.
2. Make field inspections concerning safety in operations, working conditions, safety equipment, and general safety of employees, and make recommendations on the correction of adverse conditions encountered.
3. Assist divisions in planning and conducting safety meetings.
4. Develop safety publicity programs — contests, publications, annual programs.
5. Provide safety materials for foremen and safety men — posters, safety literature, films, etc.
6. Make personal investigations of injuries; coordinate with foremen and safety men on their investigation of injuries.
7. Follow-up on condition of injured employees with particular emphasis to lost time injuries.
8. Provide other assistance to departments or divisions as requested or need is indicated to assist them in accomplishing their safety goals.

Safety Committee. A number of cities have city-wide safety committees. The committee's objective is to act as a policy group on the safety programs. The committee approach is an attempt to gain the support of other key employees and officials for the program. Although some cities do not have a city-wide safety committee, it is considered a desirable element of the program.

Wichita and Glendale have a committee consisting of department heads. The city manager in Corpus Christi, Texas, appoints the members. The committee consists of a chairman, executive secretary (personnel officer), safety engineer, three to six other permanent members, and one rotating member appointed on a month-to-month basis. Royal Oak, Michigan, refrains from appointing supervisory personnel. Sacramento County provides that the three major departments will have a permanent representative appointed by the county manager. A fourth member will be chosen by the county manager from other departments, and the county training officer is an ex officio member.

The work of safety committees is quite similar. First and foremost, they recommend safety policy to the city's chief executive. Secondly, they review serious accidents and determine fault. In this regard city practices vary. Some cities vest the board with disciplinary powers; other do not. The use of the safety committee as a disciplinary and accident review board is discussed below. Third, the committee may be assigned such tasks as sponsoring an annual safety contest and development of safety training programs.

Departmental Organization. To help insure that each department will carry out a safety program, cities often create departmental safety committees and safety officers or representatives. The departmental safety committee acts in the same manner as the general safety committee except to confine itself to departmental safety problems. Such committees broaden the base of participation

and provide a device to review general policies as they affect individual departments. Frequently membership is on a rotating basis. The Wichita departmental committees carry out safety directives of the city manager, report unsafe working conditions, and assist in developing safety-mindedness in all employees. Cities such as Cincinnati, which do not have a central committee, often will establish departmental committees.

Richmond, Virginia, has established two committees in each of the larger departments. One is made up of agency officials and often includes the department head. The other committee's membership consists of production employees and first-line supervisors. The committee made up of officials reviews accident reports, makes and reviews recommendations concerning agency safety efforts and accident problems, and not infrequently conducts investigations of the more unusual or severe accidents. The operating committees work with first-line supervision in the prevention of accidents. Membership of both committees is rotated so as to give as many officials and employees a chance to participate as possible.

Departmental safety officers or representatives are appointed either to replace the departmental committee or to augment its work. For example, Sacramento County provides that in all departments not having a safety committee, a department safety representative will be appointed. The safety committee is required in the three major departments, but it is optional in all others. Corpus Christi does not use departmental committees, but does require a safety representative and an assistant representative. The departmental safety man and assistant maintain bulletin boards, distribute safety literature, visit working crews at least once a week, observe and discuss safety measures with the foreman, investigate injuries, and so on.

Health Facilities. Management Information Service Report No. 207, *A Comprehensive Health Program for City Employees* (April, 1961) stresses the advantages of requiring periodic health examinations for all employees and providing other health facilities. A city health program has several major objectives, one of which is to spot physical defects that might contribute to accidents, such as poor eyesight, hernia, or a heart condition. Report No. 207 discusses the comprehensive program in all its aspects, while the emphasis is placed here on relating the health program to the safety program.

First, cities should strive to discover physical and mental conditions that might contribute to an accident. Cincinnati is experimenting with psychiatric evaluations of job applicants or employees who have had past difficulty or are appearing to have difficulty. The accident-prone employee might be helped in this manner, since mental problems can contribute to accidents. Cincinnati reports that the program is in its embryonic stages but that departments have found the program helpful in dealing with problem employees.

Second, cities should protect employees involved in hazardous work. For instance, public works employees exposed to possible puncture wounds should be protected with tetanus toxoid; sewer workers should have typhoid-paratyphoid vaccination; and personnel engaged in emergency services, such as police and fire, should be protected against influenza.

Third, cities must provide for the treatment of injuries. This requires first aid facilities and medical treatment. Some cities have the city physician examine all injury cases that might possibly lead to workmen's compensation claims; others require a report from the injured employee's physician. For example, Richmond, Virginia, operates an employee dispensary with two part-time doctors and two full-time nurses. This medical team provides first aid for injured employees and makes referrals to appropriate medical specialists for treatment. The staff also follows up on all employees who have suffered a disability injury, and no injured employee can return to work until the city medical staff certifies that he is physically ready.

First aid training is valuable. Iowa City established an American Red Cross first aid training program for all employees except office and clerical workers. Over a two-year period, 77 employees have received standard certificates; 38 advanced certificates; and 11 instructors' certificates. Iowa City reports that the program has fostered safety consciousness by sharpening an awareness of safety problems; provided a group of individuals who are trained to assist fellow workers and others in case of accidents; and provided a close tie to civil defense needs and goals.

Implementation and Administration

Records. Accurate records and reports are essential to any safety program. The safety officers, committees, department heads, and supervisors need to know exactly what is happening. Accident reports indicate trouble spots and, often, defective equipment or practices. Without records there is no measure of the effectiveness of the accident prevention program.

A variety of records and statistics can be kept, but three are essential: (1) the injury rate and severity rate expressed in terms of a ratio per million man-hours worked; (2) classification of accidents by causes; and (3) data on motor vehicle accidents.

The American Standards Association has developed a uniform system of reporting injury and frequency rates. The injury rate, officially called the "disabling injury frequency rate," is based on the total number of deaths and permanent total, permanent partial, and temporary total disabilities which occur during the period covered by the rate. Temporary total disability includes all days, except the day of the accident, that the employee is unable to work. The "disabling injury frequency rate" is computed as follows: number of disabling injuries multiplied by 1,000,000, divided by employee hours of exposure. Employee exposure hours are simply the total number of hours worked by all employees.

The severity rate is based on standards of severity for each type of accident expressed in number of days. In other words an accident resulting in a death is charged as 6,000 days; loss of sight in one eye, 1,800 days; and so on. The "disabling injury severity rate" is computed by dividing the employee hours of exposure into total days charged per severity standards multiplied by 1,000,000.

Cities should maintain these indices because it is the only method, except workmen's compensation loss ratios, that can be used to compare the safety record of one city against another or against comparable industries. It should be noted also that workmen's compensation loss ratios usually measure only claims actually paid. In some states workmen's compensation does not take effect for a period of days, and this period varies depending on the state. Therefore, workmen's compensation ratios are valid only among cities in the same state. Further, the American Standards Association method takes into consideration the hours of exposure. Cities should obtain complete details from the American Standards Association, 70 East 45 Street, New York 17.

The second essential record is a classification of accidents by causes. This record pinpoints unsafe working conditions and practices and helps safety officers and committees develop concrete accident prevention programs. A uniform system of classifying accidents as to causes also is available from the American Standards Association. The system refers to each essential point of information about an accident as an "accident factor." These factors are grouped into six major classifications: "(1) the agency; defective objective or substance most closely related to the injury; (2) the agency part; (3) the unsafe mechanical or physical condition; (4) the accident type (manner of contact of injured person with an object or the movement of the injured person which resulted in the injury); (5) the unsafe act; and (6) the unsafe personal factor." The complete system provides a flexible but uniform method of analyzing each accident.

A third important record is that of vehicle accidents involving city employees. Vehicle accident injuries are computed by the frequency and severity rates mentioned.

Other records are helpful. For instance, Wichita maintains records on accidents as to parts of body injured, time and day, age, length of service, and on repeaters. It also keeps a record of all off-duty accidents that result in an employee being absent from work.

Accident Reporting and Investigation. It is important that supervisors and employees be impressed with the importance of accurately reporting all accidents no matter how minor. Wichita and Corpus Christi have developed careful procedures to provide the facts about all accidents. Wichita's procedure is reproduced in Appendix A.

Just as important as the accident report is a complete investigation of accidents. The object of the investigation is not to fix blame, but to determine the cause and to find ways of preventing a similar accident. The investigation should be done by the employee's immediate supervisor, and

the more serious accidents also should be investigated by the safety officer and the safety committee. Wichita also requires that the safety officer will make follow-up investigations of near-miss accidents and make a report of findings to the general safety committee.

Safety Inspections and Engineering. Inspections of facilities and equipment and investigations of accidents can lead to improvements that prevent accidents. Some cities on beginning a program will have the safety officer and safety committee members make inspections to impress upon all employees that the city is going to act as well as talk to prevent accidents. Such inspections are often continued periodically using all members of the safety team. The Santa Barbara, California, safety program, as described in the May, 1957, issue of *Western City*, uses a task force of fire, building, electrical, and sanitary inspectors to check all facilities for unsafe conditions. The Cincinnati personnel department reports that inspections are made on a continuing basis and upon request. For instance when one group of employees had a high incidence of dermatitis, chemical analysis of dust was made to determine if the dust contained skin irritants.

Monrovia, California, has established a subcommittee on inspections of the general safety committee. The committee consists of a state industrial safety representative, the city safety coordinator, representatives of the building and health departments, and the head of the department being inspected. The committee must inspect all property at least semiannually.

When a particular function seems to have a high accident rate, special studies may be necessary. San Diego discovered that their three-man refuse collection crews were as economical as two-man and safer. The three-man crew, according to an article in the *National Safety Congress Transactions*, volume 6, 1956, is as efficient as a two-man crew and does not require the driver to assist frequently in loading. It was discovered that when the driver of the collection truck did not have to assist in loading he is less tired and devotes his full time to the important function of driving. Baltimore, according to the *National Safety Congress Transaction*, volume 8, 1960, reduced accidents involving power mowers by purchase of mowers built with specified safety features and by providing specific instructions to operators.

Cost. Complete figures on the cost of a safety program are not available, but all evidence indicates it is less than the cost of accidents. A Texas Municipal League report (*City Employee Accident Prevention Program*, Special Inquiry Series, No. 20, April, 1960), reported costs up to \$18,200 which included the salary of a full-time safety director.

A problem in determining costs is that most safety officers have other duties. Generally, expenses for training materials, posters, and so on are small in comparison to savings in accident costs. Glendale, being self-insured, charges the services of both the full-time safety officer and the city physician against workmen's compensation reserves and has a most successful program resulting in substantial savings.

Training Program

Most accidents are caused by human failure frequently resulting from a lack of knowledge and skill, and a lack of interest. It is through training that supervisors' and employees' interest and knowledge can be increased. All the safety committees, reports, records, and inspections will not reduce accidents unless safety training is undertaken.

Supervisory Training. Training first-line supervisors is highly important. He is the person who has the most direct contact with employees. Without his support the safety program may not get to first base. The Texas League report indicates that one of the toughest jobs is to motivate supervisors to carry out their safety responsibilities. Supervisory safety training should not only be aimed at imparting specific safety practices but also at motivating the supervisor to consider safety as one of his basic responsibilities.

Burbank, California, has profitably used a coffee-break safety meeting as a training device for first-line supervisors. With a cup of coffee and a doughnut to start the morning meetings, a wide range of topics is discussed, including means of conducting safety training, use of discipline in accident prevention, and specific safety practices. Royal Oak, Michigan, issues a monthly supervisor's safety bulletin. The bulletin is simple, but it serves as a reminder to supervisors of their responsibilities (see Figure 2).

SUPERVISOR'S SAFETY BULLETIN

Personnel Department

November, 1959

Number 1

This is the first in a series of monthly safety letters which you will receive from me directed at making you and other supervisors "safety conscious." The words "safety conscious," however, only partially describe what I am really looking for. What I want and the City needs is your cooperation. Your cooperation in helping to reduce the number of injury and vehicular accidents that so seriously handicap our operations.

In this office, we can come up with all kinds and types of safety pamphlets, manuals, and rules, but the actual enforcing of these rules is up to you. It should be clearly understood that safety is nothing you as a supervisor can take for granted or ignore. It is as much your responsibility to see that the "Safety Tips" recently distributed by us are followed as it is your responsibility to see that the "Administrative Rules" regarding attendance and leave are adhered to. Accidents just don't happen, they are caused. If they are caused by poorly trained or safety orientated employees under your supervision, you contributed to the accident by neglecting to properly train or caution the employees.

What I am asking you to do is to familiarize yourself with the "Safety Tips" thoroughly. If you feel amendments or deletions are necessary, call it to my attention. Secondly, see that the men follow the "Safety Tips." If your men are working without safety goggles or other protective equipment when conditions so warrant make the men wear them. The more I am exposed to safety the more I am convinced that half of safety must be sold by attrition. That is to say, keep wearing away at your men with safety until such time as it is just accepted as part of the job.

I am not asking you to do something that is easy, but if we prevent just one accident, it is well worth our efforts. Just as a matter of information, a total of 140 injury accidents occurred last year. How many could you have prevented?

Michael E. Lesko
Personnel Director

P.S. When was the last time YOU checked the tools used by your subordinates for damage?

Figure 2 -- Safety Bulletin, Royal Oak, Michigan

Orientation. New employees should be impressed with the concern of the city for safe working conditions and practices. Glendale incorporates safety training into the orientation program for new employees. A film on the general aspects of on-the-job safety is shown, and the safety officer describes the over-all safety program in relation to the employee's job and his responsibilities.

Classes. Training classes can be conducted on a variety of subjects. Such classes can be formal or informal, and the subject matter will vary depending on the department. Cincinnati holds five-minute, once-a-week safety discussions for employees of the street maintenance division of the public works department. The workmen are assembled on the job site and are encouraged to bring up safety problems for discussion. The foreman serves as an advisor to the group.

Another area that lends itself to training is driver education. A number of cities have established driver schools for new vehicle operators and for those who have been involved in an accident. Cincinnati periodically conducts a two-day program. The subject matter is varied and includes the use of films, slides, and discussion.

Pamphlets, Newsletters. A number of cities issue safety material which are educational and promotional. The material might be specific, such as "How to handle materials," or of a general nature. Bulletin boards are also used. Figure 3 is an example of the type of material that can be prepared for general distribution. A number of cities have issued manuals or handbooks on safe driving practices.

Outside Assistance for Safety Programs

National Safety Council. The National Safety Council is concerned with the prevention of all accidents. The average person knows of the Council because of its holiday automobile death predictions and its safety promotional work in the area of motor vehicles. However, the work of the Council encompasses almost all areas involving safety — industrial, home, and motor vehicle. The National Council offers two services that would assist any city or county in conducting a safety program.

First, the Council has an industrial safety program which is divided into sections based on industries. Each section has its own elected officers, and the Council assigns a staff representative to provide technical assistance. The Council has a Public Employee Section for officials of local and state governments. Membership fees depend on the number of employees. The schedule of fees runs from \$35 for cities with less than 99 employees to \$1,650 for 100,000 or more employees. For a city of 100 to 200 employees the cost is \$50. The services offered are described by the Council as follows:

Members are entitled to unlimited engineering consultation and library service; participation in activities of the Public Employee Section and the National Safety Congress; use of the Speakers' Bureau and Employment Bureau; and participation in the Council Award Program. Thirty-five per cent of each member's dues is allocated to the support of these and other member services. The remaining 65 per cent of the member's dues is set up as a Service Credit for the selection of training aids and other safety materials.

Upon receipt of this application the National Safety Council will send the individual named . . . an administrative unit consisting of a manual and other publications which show how to organize and carry out an effective safety program. Each month throughout the membership year the administrative unit will provide *National Safety News* magazine, the *Public Employee Safety Newsletter*, and other publications. The cost of the administrative unit will not exceed \$31.50 and will be automatically deducted from the Service Credit. After deducting the cost of the required administrative unit the remaining service credit may be used to obtain whatever Council safety program aids the member wishes to select. All purchases are billed at discount (10% off list) prices. Upon receipt of this application the Council will send a complete set of service guides showing the technical, supervisory training, employee training, and driver training materials available. The Council staff will also make recommendations for use of the Service Credit.

The second service offered is in the area of vehicle safety. The subscription fee is based on the number of drivers the city has. The service is officially called the "Complete Motor Transportation Service," and its purpose is to provide materials for an effective fleet safety program. The services, listed in Figure 4, are varied including a national fleet safety contest and driver awards.



Good housekeeping - Safety

4 SIMPLE RULES FOR HOUSEKEEPING ... everywhere ... all the time

HOUSEKEEPING MAKES IT EASIER. When things are in their proper place, you can find them when you want to—and they're not in your way when you don't need them. You have more room for what you're doing.

HOUSEKEEPING LETS YOU DO IT BETTER. A well-kept workplace—at the plant or in your own basement or garage—brings out the best in you.

Your work gets done with fewer interruptions, with fewer mistakes—saves time and frustration.

HOUSEKEEPING MAKES IT SAFER. Many accidents—at home as well as at work can be traced directly to poor housekeeping.

Think of all the trips and falls that are caused by messy drippy floors.

Think of all the banged-up shins that are caused by poorly stocked materials!

Think of the fires that are caused by scrap and junk that should have been thrown out!

PUT IT AWAY. Toys, tools, clothes, odds and ends you want to save can cause someone to bump, slip, or trip if left on floors, ledges, or out in the open. Put them out of harm's way . . . now . . . today!

PUT IT AWAY TO STAY. Anything that isn't put away securely—that can roll or collapse or slide or tip—is a potential trouble-maker. Make sure you put things away to stay . . . until you want them!

THROW IT AWAY. If you don't need it, can't think of a use for it, don't keep—get rid of it. Space is valuable, and things that lay around are dirt catchers and accident makers!

CLEAN IT UP. Attics, basements, closets, lockers should be your clean-up targets. Pay special attention to things that burn easily—rags, paper, chemicals. Burn them up before they burn you up.



Figure 3 — Safety Newsletter, Wichita, Kansas

ADMINISTRATIVE SERVICES

Each member receives the following materials and services designed to assist the administrator of the safety program:

FLEET SAFETY MANUAL

This manual tells how to organize and administer an effective safety program. The Manual consists of eight sections on important aspects of fleet safety work which are bound in a loose-leaf binder. One copy to each member. Condensed version (Fleet Safety Guide) provided if under ten drivers enrolled.

TRAFFIC SAFETY MAGAZINE

A monthly magazine devoted to traffic and transportation safety programs. Contains articles by leading fleet safety and training authorities; accident statistics; and reviews and news of safety products and publications. One copy each month to each member.

NATIONAL SAFETY NEWS

The Council's big monthly magazine for professional safety people. One copy each month to members with more than 100 drivers enrolled.

SECTION NEWSLETTER

A four-page monthly newsletter containing short articles by fleet safety men on means and techniques of reducing motor vehicle accidents. One copy each month to each member.

SECTION ENROLLMENT

There are two Sections, Commercial Vehicle and Transit. Each has an Executive Committee made up of representatives of member organizations which helps to plan the services and program of the Council in the Motor Transportation area. Members are enrolled in the appropriate Section and are eligible to participation in Section activities.

ACCIDENT FACTS

100-page book presenting complete statistical picture of nation's accident losses. Deals with motor transportation, home, farm, occupational, and traffic accidents. One copy annually to each member.

ACCIDENT RATES PAMPHLET

50-page book giving accident experience of motor vehicle fleets. Breaks down experience by type of operation (private carrier, common carrier, city transit, etc., 27 categories in all). One copy annually to each member.

CONGRESS TRANSACTIONS

Reports of meetings devoted to motor transportation safety problems at the annual National Safety Congress. Copies of pertinent pamphlets sent annually to each member.

NATIONAL FLEET SAFETY CONTEST

A nation-wide competition for motor vehicle fleets, to stimulate interest in safe driving performance and build a team spirit among the drivers in participating companies. Winning companies receive handsome trophies and nation-wide publicity. Complete details and enrollment information sent to each member.

CONSULTATION AND LIBRARY SERVICE

The Council's staff of fleet safety engineers, statisticians, and researchers, assist member companies to install and administer accident prevention programs. Consultation (via mail) and library service available to all members at no charge.

SAFE DRIVER AWARDS

The Complete Motor Transportation Service offers the Safe Driver Award: "The Nation's highest award for professional safe driving performance." Each year certified drivers are sent wallet certificates and their choice of cap, lapel, or key-chain Safe Driver Award emblems.

And you don't have to wait a full year to get Safe Driver Awards for your personnel. Immediately upon enrolling for the Service, you can begin certifying drivers for Awards. Your records will determine the number of years of recognition.

POSTER SERVICE

Each member receives one or more poster sets each month. A poster set consists of four posters (two 8½" x 11" and two 17" x 23"). Posters are prepared for various types of motor transportation operations, such as transit, intercity bus, city and intercity truck, taxi, etc. Each member receives the following number of poster sets each month:

NUMBER DRIVERS ENROLLED	NUMBER POSTER SETS
1-49	1
50-99	2
100 or more	4

INDIVIDUAL DRIVER SERVICES

For each driver enrolled, the following materials and services are provided:

FOR EXPERTS ONLY

A booklet for drivers that explains the Safe Driver Award Plan, and sets forth a code of professional safe driving performance. Members receive one copy for each driver upon enrollment, and one copy for each five drivers each year thereafter.

SAFE DRIVER MAGAZINE

Combines cartoons, humor, and quizzes with short articles on skills and attitudes important to safe motor vehicle operation. Special editions for bus, truck, and passenger car drivers. One copy sent each month for each driver enrolled.

MONTHLY DRIVER LETTER

A monthly letter on an important safety topic to stimulate drivers' thinking about accident prevention. Special letters written for bus, truck, and passenger car drivers. One copy each month for each driver enrolled.

OTHER MEMBERSHIP SERVICES

Ten per cent discount on all Council materials including films, training materials, and technical publications.

Copies of Council catalogs and service guides.

Descriptive literature and sample copies of new publications and materials.

Cartoons, mats, and safety features for use in company magazines and bulletins.

Figure 4 — Complete Motor Transportation Service, National Safety Council

State Agencies. Cities can obtain assistance from state bureaus of labor and workmen's compensation. These agencies often publish materials for training and provide technical assistance. For example, the Ohio Industrial Commission has published a supervisor's discussion guide called *Pattern for Progress*.

Insurance Companies. Cities that carry workmen's compensation insurance with commercial insurance companies can often receive assistance from the company. A number of insurance companies have safety engineers who are available to their customers. Oak Park, Michigan, holds a bi-monthly meeting of the safety committee to discuss personal accidents, and a safety engineer from the insurance company attends and acts as a technical advisor.

Other Organizations and Associations. Other organizations provide material and assistance. The American Red Cross can assist in first aid training. The Federation of Sewage and Industrial Wastes Association, 4435 Wisconsin Avenue, N. W., Washington 16, D. C., has published *Safety In Waste-water Works*. The National Society for the Prevention of Blindness, 1790 Broadway, New York 19, offers assistance and materials. It also sponsors the Wise Owl Club of America which gives special recognition to workers who have escaped eye injury because they were wearing proper protection when an accident occurred. At least one city, Burbank, California, reports belonging to the Wise Owl Club.

The American Standards Association has already been mentioned in regard to compiling statistics on accidents. It has published other materials that might be of assistance to cities, usually safety codes. Some typical topics of interest to cities are safety measures for construction, ladders, window cleaning, lighting, and protection of heads, eyes, and respiratory organs.

Many governmental agencies and other organizations have established safety specifications. For instance the National Fire Protection Association has material relating to the prevention of fires; the National Bureaus of Standards has prepared a number of safety codes; and the Bureau of Labor Standards, U. S. Department of Labor, has material on such topics as *Safety Through Management Leadership* and *A Guide to the Prevention of Weight Lifting Injuries*. A complete list of sources for safety is available to National Safety Council members.

Enforcement

Safety Policy. One of the essential ingredients of a safety program is the establishment of a safety policy. The policy should be issued by the chief administrative officer. It is a statement that management, supervisors, and employees have responsibilities in the area of safety. The policy can be relatively short, as with Cincinnati and Corpus Christi, or it can be part of a detailed accident prevention manual, as in Wichita.

The policy should make clear management's interest in safety. It should assign responsibilities for the conduct of the program. It should make the use of safe working conditions a duty of all employees in the city service. The real value of the policy statement is to give the impetus to an action program. Cincinnati's policy is reproduced in Appendix B.

Safety Rules. Another desirable ingredient is safety rules that provide a basis for disciplinary action. Because of the wide variety of city operations it is impossible to develop a general set of rules that are all-inclusive. Thus general rules must be augmented by departmental rules and supervisory orders. Departmental rules are particularly desirable in those operations that accident records show are hazardous.

The general rules of Glendale offer a guide as to subject matter. The introduction covers such items as the supervisor's responsibility to inspect work areas for unsafe conditions and to instruct employees on the hazards of the job and safe practices to be followed. The rules then consider specific hazardous conditions applicable to most departments, such as office safety, handling materials, and the operation of motor vehicles. Figure 5 illustrates some of these rules.

Discipline. No program or set of rules can be successful unless it is backed up by discipline, not only in the negative sense of punishment but also in the positive sense of training. This report thus far has emphasized the positive. A word is needed on discipline in the negative sense.

HOUSEKEEPING

1. Aisles and passageways shall not be used for the storage of hand trucks and stock.
2. Oil or grease when spilled on floor shall immediately be wiped up or sprinkled with absorbent floor compound.
3. Gather up all tools and return them to their proper places. Make sure that no tool or other appliance has been left in any machine or other place where it might fall or cause damage when the power is turned on.
4. Stairways and fixed ladders shall be kept free of obstructions.
5. Return all surplus materials to stock.
6. The bench and work area to which you are assigned should be clean and neat. Keep tools and equipment arranged in a safe, orderly manner.
7. Remove handles from jacks when not in use.
8. Welding leads, electric, steam and air lines should be kept off floors by use of trees and hooks whenever possible.
9. Scrap material and rubbish shall be placed only in containers provided for that purpose.
10. Metal stock, lumber and cased or crated goods should be stored in a neat and orderly manner. Round stock should be blocked to prevent rolling, gas cylinders secured by chains in an upright position and tiered materials cross-tied.
11. Do not hang clothing, towels, rags, or other combustible materials on radiators, hot lines or similar locations.

CHEMICALS

1. Extreme care shall be exercised by all personnel handling or working with acids, caustics, solvents, or petroleum products.
2. In mixing acid and water, always pour the acid into the water slowly. Never pour the water into the acid.
3. Handle tools carefully while working around acid or other chemicals to avoid dropping them where they may cause a splash.
4. After tools have been used near corrosive chemicals, clean them thoroughly by neutralizing with lime water or alkali carbonates.
5. Wear protective goggles and clothing when injurious bodily contact with acids or other corrosive materials may occur.
6. Wash out eyes with large quantities of clean water immediately if chemicals splash into them, and report to the City Physician immediately.
7. All spilled acids or caustics shall be cleaned up immediately. Spilled acid shall not be mopped up with organic materials such as sawdust, waste, or cloth. Wash down with water.
8. Containers of injurious chemicals or substances shall be plainly labeled indicating hazards and precautionary measures to be observed.

MACHINERY

1. Employees must never operate machinery or equipment without authority and only after receiving full instructions on its safe operation from their supervisors.
2. All gears, belts and pulleys or other power transmission equipment, shall be adequately guarded.
3. Guards and safety devices must be kept in place at all times except when necessary to remove for repairs.
4. Machinery should normally be stopped before adjusting, oiling or cleaning.
5. A brush shall be used for cleaning chips away from machinery, equipment or work benches. Hands shall never be used to brush chips, dust, or other material.
6. Loose clothing, neckties, gloves, rings, and bracelets should not be worn when working with rotating machinery.
7. Never apply a wrench to moving machinery; stop the machinery; then carefully remove all tools before starting again.
8. Tools rests, tongue guards and eye shields shall be kept in adjustment on grinding wheels at all times.
9. Do not leave machines running unattended.
10. Machine operators should not be distracted while on the job.
11. A vise or clamp shall be used to hold work on a drill press.
12. Block up ram before pulling the switch on power hammers, punch and presses when setting up or adjusting dies.

OFFICE SAFETY

1. All defective equipment should be reported to the immediate supervisor who will take steps to correct the unsafe condition.
2. Employees shall be guided by the following safety rules when working in or around an office:
 - (a) Stair rails or wall rails should be used when ascending or descending stairs.
 - (b) Do not run or jump at any time.
 - (c) Make sure that fingers are on handle of paper cutter before pressing down on blade.
 - (d) Keep fingers away from ejecting slot when loading or testing stapling tools.
 - (e) Do not go into dark places without adequate light.
 - (f) Do not leave open scissors lying on top of desk or in desk drawers. Always close scissors when you are through using them.
 - (g) Do not pull open more than one file cabinet drawer at a time.
 - (h) Always close file cabinet drawer when you leave the cabinet.
 - (i) Do not stand on chairs, boxes, or crates.
 - (j) Do not put bottles or other objects on window sills.

Figure 5 — Examples of Safety Rules, Glendale, California.

There are occasions when it may be desirable to give an employee an oral warning, a written reprimand, or even a suspension for violation of safety rules. Such actions should be limited to those employees who refuse to follow safe practices. If the safety rules are to have meaning, violations cannot be overlooked. Burbank, California, has issued a handbook to supervisors on *The Use of Discipline in Accident Prevention*. The handbook stresses this important point: discipline is used for the violation of a safety rule, not because of an accident. When discipline is necessary it should be given in the same manner as in any other case for violation of any set of rules.

Boards of Inquiry. The work of the safety committee as an accident review board has been mentioned. In most cases such review is not for the purpose of fixing blame per se, but for discovering the reason for the accident. Punishment, when necessary, is left to normal procedure. There is one area of exception: motor vehicle accidents.

A motor vehicle accident often involves other people. Besides liability for the employee's injury, the city may be liable for the injury to the other person and property damage. Because of the special problems created by the vehicle accident, some cities have established a board of inquiry for vehicle accidents only. Glendale, Monrovia, and Sacramento, California; Dallas, Texas; Cincinnati, Ohio; Rockford, Illinois; Richmond, Virginia; and Royal Oak and Oak Park, Michigan, are known to have separate vehicle accident review boards. All the boards, except Royal Oak's, fix responsibility for the accident and recommend disciplinary action and/or training in safe driving techniques.

Awards. Some cities have established safety awards, particularly for safe driving. Tacoma, Washington, has an award system for those who are responsible for the operation of a motor vehicle at least 50 per cent of the working days for 12 consecutive months. To be eligible a driver must have a 12-month, accident-free record. The awards, in the form of pins and certificates, are presented annually by the mayor and the city manager. The National Safety Council's award program has already been mentioned. Another method of recognition is to present a flag or cup to the department with the best safety record. Friendly competition can do much to stimulate interest. Richmond allows each agency to provide its own rewards. The form of recognition by the agency involves an appropriate ceremony with awards to subunits within the agency and to individual members. These ceremonies are usually attended by the city manager, director of personnel, and sometimes by a member of the city council.

Acknowledgements. Management Information Service wishes to thank the officials of the following cities and counties for supplying information about their safety programs: Burbank, Glendale, Monrovia, and Sacramento County, California; Wichita, Kansas; Rockford, Illinois; Iowa City, Iowa; Oak Park and Royal Oak, Michigan; Cincinnati, Ohio; Corpus Christi, Texas; and Richmond, Virginia.

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Note: This report was prepared by William E. Besuden, staff member, International City Managers' Association.

Appendix A

PROCEDURE FOR REPORTING ACCIDENTS, WICHITA, KANSAS

1. Supervisors must report all accidents which cause delay to the normal operation of their activities.
2. Accident Defined
 - a. ON DUTY — Any injury, lost time or no lost time, or any work delay caused by the breakdown of machinery, tools, or equipment which could have caused an injury are classified as accidents.
 - b. OFF DUTY — Off-duty injuries are those employees' injuries which happen during off-duty hours and cause the employee to miss his regularly scheduled duty day.
3. Supervisors must report and investigate all accidents regardless of seriousness. The immediate foreman or crew chief will complete the Safety Accident Investigation Report (Form AP-1) at the scene of the accident. Original and one copy of Form AP-1 will be submitted to the general supervisor who will complete the employer's report of accident for the workmen's compensation commission. The procedure for handling Noncritical and Critical injuries along with procedure for handling workmen's compensation cases will be described on pages 39 and 39A of "Administration Personnel Policy and Procedure Manual." The original and one copy of workmen's compensation report, along with the original copy of Form AP-1, will be forwarded to the Accident Prevention Section. One copy of both reports will be submitted to division head.
4. The reports must be in the accident prevention section on the working day following the accident.
5. The Supervisor is responsible for investigating the accident. He shall state the basic cause and make corrective recommendations. Names of witnesses to accidents will be recorded by supervisors.
6. In the event of a major accident, the accident prevention section must be notified immediately by telephone. Immediate hospitalization of employee is classified as a major accident.
7. In cases of **TRAFFIC ACCIDENTS**, only those reports required by police department will be completed. Employers report of accident for the workmen's compensation commission will be completed where applicable.
8. Accidents involving private citizens and/or City-owned mobile equipment (**TRAFFIC ACCIDENTS**). Such accidents will be reported to the accident prevention section and to the Police Dispatcher (AM 2-2611) immediately by telephone regardless of the seriousness of the traffic accident. Should the accident occur outside of the regular working hours the accident prevention section (8:00 a.m. — 5:00 p.m., Monday through Friday) the report will be made at 8:00 a.m. on the following working day. In all traffic accidents, the police dispatcher will be contacted regardless of hour of accident. No additional reports other than those required by the police department are needed unless the employer's report of accident for the workmen's compensation commission is applicable. The Accident Prevention Section will prepare a summary of the accident from police investigator's reports for the review and comments of the supervisor, division head, and department head. The supervisor will review those facts and return his recommendation on a form supplied by the accident prevention section. Original copy to the accident prevention section, with a copy to the division head.
9. Accidents involving private citizens and/or City-owned mobile equipment (**NONTRAFFIC ACCIDENT**). Such accidents involving considerable damage to equipment and/or injury to private citizen must be reported to the accident prevention section immediately by phone (hours same as above). In all accidents, the original and one copy of the safety accident investigation report (Form AP-1) will be prepared by immediate supervisor. The original report must be in the accident prevention office on working day following accident. Copy of report to division head.
10. Off-duty injury. Off-duty injury suffered by City employees will be reported in accordance with established policy on page 35 of the administrative personnel policy and procedure manual. Form P-25, "Sick and Off-duty Injury Report," will be used.

Appendix A — continued

Bodily Injury ☐
 Equip. Damage ☐
 Bodily Injury & }
 Equip. Damage } ☐

City of Wichita
 Accident Prevention Section-Personnel Div.
 Room 407 - Ext. 222
SUPERVISOR'S REPORT OF AN ACCIDENT
 (Non-Traffic Accident),
 ON-DUTY
 (Form AP-1)

This form is to be used for reporting of accidents even if such an accident does not involve an injury to an employee. This form does not take the place of the Workmen's Compensation Report.

- (1) Employee involved in accident _____ Job title _____
- (2) Was this an injury accident? Yes () No ()
- (3) Date of accident _____, 19____ (4) Time _____ a. m. _____ p. m. (5) Shift began _____ a. m. _____ p. m.
- (6) Division _____ (7) Foreman _____
- (8) Location of accident _____
- (9) Nature of Injury (if any) _____
- (10) Describe in detail HOW accident occurred _____
- _____
- (11) Describe damage to City equipment _____
- _____
- (12) Employee involved _____ (13) Why? _____
- Responsibility Fellow employee _____
- Management _____
- (14) Unsafe conditions that caused accident _____
- _____
- (15) Unsafe acts of persons which caused accident _____
- _____
- (16) Any other cause? _____
- _____
- (17) Recommendation to prevent future accidents of this nature _____
- _____
- (18) Witnesses: _____
- (19) Employee involved: _____
- (20) _____ (21) _____

Crew Chief or Foreman

Supervisor

Employees' signature not required if employee is disabled when report is prepared.

Appendix B

August 4, 1953

TO ALL DEPARTMENTS UNDER THE CITY MANAGER
AND TO INDEPENDENT BOARDS AND COMMISSIONS:

SAFETY POLICY AND PROCEDURE

GENERAL POLICY

The City of Cincinnati believes that safe working conditions for every one of its employees can be attained through use of safety equipment, by proper job instruction, frequent review of safe practices and adequate supervision.

This procedure defines City of Cincinnati policy with reference to safety practices and established responsibilities for the administration and coordination of an effective safety program as outlined in the following paragraphs:

General Responsibility

1. City of Cincinnati Responsibility: The City of Cincinnati recognizes the need for the development of safe working practices for every job. It promotes the advancement of safety in design of buildings, equipment, tools and other work devices.
2. Departmental Responsibility: Each department shall have a definite safety plan by means of which safe working practices which are in effect will be brought to the attention of every employee.
3. Supervisory Responsibility: All supervisors will consider it an essential part of their job to administer the safety program.
4. Employee Responsibility: All employees are required as a condition of their employment to follow all established safety practices.
5. Department of Personnel Responsibility: Responsibility for the promotion and coordination of the safety plan generally throughout the city departments lies with the Personnel Department.

DETAILED PROCEDURES1. Departmental Responsibility:

Although detailed practices will depend on the safety requirements of the departments, the general pattern of the plan shall be as follows:

- A. Safety Information: Through the established lines of departmental organization, safety information shall be given to employees. In all large departments, department heads shall arrange for regularly scheduled safety meetings with their supervisors. The supervisors shall transmit safety information to their employees either through group meetings or by discussion with individual employees. Written safety rules shall be developed and formulated for safe working practices. These rules must be kept up-to-date, and must be thoroughly explained to every employee.

Appendix B — continued

- B. Safety Suggestions: Such suggestions made by employees to their supervisors will be referred through the line organization to the department heads. Definite replies to all suggestions shall be made within reasonable lengths of time.
 - C. Hazardous Working Conditions: All such conditions reported shall be studied and corrected through either the elimination of the hazard or by proper job instruction and adequate supervision.
 - D. Occupational Requirements: The ability to perform work assignments safely shall be a factor in the selection of employees.
 - E. Departmental Safety Representatives: A representative for each department shall be selected to act as a coordinator for the safety plan within the department and as a medium of contact with the Personnel Department. The duties of the representative shall not conflict with the responsibilities of supervisors for the safety of their employees.
 - F. Safety Committee: In large departments, safety committees or other safety organizations may be appointed to work with the safety representative in supplementing the work of supervisors.
2. Supervisory Responsibility:
- A. Success of Program: The success of the safety program will depend to a great extent on the efforts of those who administer it, particularly first-line supervisors.
 - B. Correcting Unsafe Conditions: All supervisors shall be constantly on the alert to observe unsafe working practices or conditions with the aim of immediate correction.
 - C. Safety Education of Employees: The supervisor shall be sure that employees are well acquainted with existing safety rules and see that the rules are enforced.
 - 1. Problems relating to safety on the job shall be discussed by supervisors either in group meetings or individually.
 - 2. Supervisors shall encourage employees to submit safety suggestions and see that replies are made promptly.
 - 3. Safety training of new employees shall be directed or conducted by supervisors.
3. Employee Responsibility:
- A. Condition of Employment: All employees shall be required as a condition of their employment to follow all safety practices which are established for the protection of themselves, their fellow employees, and the public.
 - B. Employee Cooperation: The City expects that each employee will accept safety as a personal matter and cooperate in the safety program by developing safe work habits and by reporting hazardous working conditions.
4. Safety Responsibility of Personnel Department:
- A. General Functions: The Personnel Department will assist in the development of departmental safety programs, coordinate interdepartmental safety practices, and keep the other departments informed of the safety performance within the city government.
 - B. Investigation of Unsafe Practices: The Personnel Department is authorized to investigate practices or conditions which have caused, or may cause, accidental injury or property damage and make recommendations for their correction.

Appendix B -- continued

- C. Outside Relations: The City of Cincinnati's relations with outside safety associations or organizations shall, in general, be carried on through the Personnel Department. Public contact on safety matters, however, may frequently involve the activity of other departments, and, under such conditions, the Personnel Department will function by mutual agreement, with the department concerned.

City Manager

